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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,687	01/15/2004	Charles D. Lennox	MED03-12	4945

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EXAMINER

GIBSON, ROY DEAN

ART UNIT PAPER NUMBER

3739

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/758,687

Applicant(s)

LENNOX, CHARLES D.

Examiner

Roy D. Gibson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 July 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) 49-51 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 15, 16, 19, 20, 33, 34, 37, 45, 46, 52 and 53 is/are rejected.
- 7) ☒ Claim(s) 3-14, 17, 18, 21-32, 35, 36, 38-44, 47 and 48 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 7/26/2004, 7/28/04, 10/1/04, 6/28/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- Other: \_\_\_\_\_

***Election/Restrictions***

Applicant's election without traverse of claims 1-48, 52 and 53 in the reply filed on July 27, 2006 is acknowledged.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 15, 17, 19, 20, 33, 34, 37, 45, 46 and 52-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ash (6,156,007).

as to claims 1, 2, 19, 20 and 37, Ash discloses a fluid transfer assembly comprising:

a fluid catheter defining a fluid carrier volume (Figure 1, the volume of the conduit portion between the heat exchanger and the return catheter positioned in the body), the fluid carrier having a distal end and a proximal end, the distal end configured to insert within a body lumen; and

a heat exchange assembly (134: not that 34 should be 134 in the figure) coupled to the proximal end of the fluid carrier, the heat exchange assembly having:

at least one heat exchange conduit (the portion shown within (134) in fluid communication with the fluid carrier;

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a heat exchanger in thermal communication with the heat exchange conduit;  
and

a pump (120) in fluid communication with the fluid carrier and in fluid communication with the at least one heat exchange conduit (col. 9, lines 13-62).

Further to claim 19, Ash discloses a console coupled to the heat exchange assembly and configured to circulate a thermal exchange fluid within the heat exchanger (see Figure 3). However, Ash fails to specifically disclose the pump defuses a stroke volume greater than the fluid carrier volume defined by the fluid carrier; wherein the fluid carrier volume of the fluid carrier is less than between 30% and 60% of the stroke volume defined by the pump. But, the examiner maintains that it would have been obvious to a skillful artisan that in order to maximize the heat transfer between the fluid (blood) and the heat transfer liquid in the heat exchanger, that the fluid circuit volume should be completely filled and, therefore, the pump stroke volume (which is well defined for a roller pump as well as a piston pump) would be greater than the fluid carrier volume, and that the fluid carrier volume would be about 30-60% of the stroke volume as estimated by Figure 1). In addition the examiner maintains that the broad range of 30-60% for the fluid carrier volume suggests the lack of criticality of this value and that such a value is merely an obvious design choice.

As to claims 15, 16, 33 and 34, Ash discloses the catheter is configured to insert into a carotid artery of a body and is about 16 French (Col. 13, lines 20-36).

As to claims 15, 16, 33 and 34, Ash discloses a blood inflow sensor (54 and col. 10, line 9-15).

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As to claim 46, Ash discloses the method essentially as claimed since the reintroduction of the blood into the body is after its temperature has been modified and the recitation fails to limit the reintroduction via a separate catheter.

As to claims 52 and 53, Ash discloses the catheter is configured to be introduced into a typical artery or vein inherently including the lateral ventricle of the brain.

### ***Allowable Subject Matter***

Claims 3-14, 17, 18, 21-32, 35, 36, 38-44, 47 and 48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

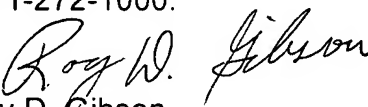
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kroyer (5,074,838) and (4,908,014) discloses an extra-corporal thermotherapy device; and Fausset et al. (6,579,496) disclose an apparatus for implementing hyperthermia.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roy D. Gibson whose telephone number is 571-272-4767. The examiner can normally be reached on Tu-Th, 7:30 am-4:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda Dvorak can be reached on 571-272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Roy D. Gibson  
Primary Examiner  
Art Unit 3739

October 12, 2006